

REMARKS

The pending final Office Action addresses and rejects claims 1-13 and 15-21. Claims 1-13 and 15-19 are rejected, and claims 20-21 are withdrawn from consideration.

Claim Amendments

Claim 1 is amended to include the limitations of claim 8, and claim 8 is canceled. Claim 9 is amended to include the limitations of claim 19, and claim 19 is canceled. No new matter is added.

Applicants note that the claim amendments **should be entered** as the amendments merely involve limitations found in dependent claim 8 and 19, and do not include any new subject matter that would require further search.

Rejections Pursuant to 35 U.S.C. §102

Claims 1-3, 6, 9-11, and 16 are rejected pursuant to 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,447,489 of Peterson. As noted above, independent claim 1 is amended to include the limitations of claim 8, and independent claim 9 is amended to include the limitations of claim 19, thus obviating the basis for this rejection.

Regarding Applicants' argument in the previous response that Peterson does not teach a first component having an elongate, *hollow* body, Applicants note that they do not agree with the Examiner's remarks in the response to arguments regarding the "hollow body," but Applicants make the amendments to claims 1 and 9 only to advance and expedite prosecution.

Claim Rejections under 35 U.S.C. §103

(1) Peterson

Claims 4, 7, 15, 17, and 18 are rejected pursuant to 35 U.S.C. §103(a) as being obvious over Peterson. Claims 4 and 7 depend from claim 1, and claims 15 and 17-18 depend from claim 9, and thus distinguish over Peterson for at least the same reasons discussed above. Claims 4, 7, 15, 17, and 18 therefore represent allowable subject matter.

(2) Peterson in view of U.S. Publication No. 2002/0002360 of Orth et al.

Claims 5 and 12-13 are rejected pursuant to 35 U.S.C. §103(a) as being obvious over Peterson in view of U.S. Publication No. 2002/0002360 of Orth et al. Claim 5 depends from claim 1, and claims 12-13 depend from claim 9, and thus distinguish over Peterson at least because Orth fails to remedy the deficiencies of Peterson. Specifically, Orth does not teach or suggest at least one sealing ring around the elongate body proximal to the tip as required by claim 1, or a insertion rod that includes a pair of sealing rings around the elongate body as required by claim 19. Claims 5 and 12-13 therefore distinguish over Peterson and Orth and represent allowable subject matter.

(3) U.S. Patent No. 6,328,715 of Dragan et al. in view of Peterson.

Claims 1-4, 6-11, and 15-18 are rejected pursuant to 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,328,715 of Dragan et al. in view of Peterson. The Examiner asserts that Dragan discloses the claimed invention except for teaching “that the proximal end of the first component is funnel-shaped.” The Examiner relies on Peterson to teach a “first component (10) with a funnel-shaped proximal end (14).”

In the response to arguments, the Examiner asserts that “in the art of liquid management, a person of skill in the art would look to combine this [sic] two references since the funnel-shape in the proximal end would allow for an ease in fluid handling.” Applicants completely disagree with this rationale as a motivation to combine the references and modify the proximal end of the barrel (28) of Dragan to have a funnel shape. While in some instances having a funnel to move liquid would be advantageous, it is not a feature that would improve the device of Dragan at all because any liquid being dispensed from the device is encapsulated in the pre-filled ampule that is inserted in the barrel (28). There is no need for any features on the end of the barrel to aid in fluid handling, as suggested by the Examiner, as any fluid used with the device is already housed inside the ampule.

In addition, there is no motivation to modify the proximal end of the barrel of Dragan with a funnel shape as this would hinder the formation of a seal or friction resistance between the barrel and the plunger. The device of Dragan is a syringe used to dispense low-viscosity material using the barrel (28)

and the plunger (26), which are specifically formed to allow the plunger (26) to be moved within the barrel (28) to control the dispensing of material from the ampule (10) positioned within the distal end of the barrel (28). The plunger (26) includes an o-ring that is used to provide friction resistance or a seal between the plunger and barrel when the plunger is inserted in and advanced through the barrel. The proximal end of the barrel (28) is substantially linear with the rest of the barrel (28) such that the seal or friction resistance is formed with the plunger as soon as the o-ring passes the proximal end of the barrel. Forming the proximal end of the barrel with a funnel shape (essentially flaring out the proximal end of the barrel) would prevent the seal or friction from being formed until the o-ring has advanced into the barrel a distance such that the o-ring is clear of the funnel shaped portion of the barrel. Thus, the seal or friction formed between the plunger and the barrel would not form at the end of the barrel as desired, but rather somewhere inside the barrel, allowing for the potential of undesired substances to enter the barrel before the seal is formed.

As explained in the previous response, there is also no motivation to modify the teachings of Dragan such that the proximal end of barrel (28) of Dragan has a funnel shape because modifying the flange (30) of the barrel (28) into a funnel shape would serve absolutely no purpose, except possibly to render the device needlessly larger and bulkier. The proximal end of the barrel (28) is substantially linear with the rest of the barrel (28) to maintain proper positioning of the plunger (26) when it is moved within the barrel (28). Modifying the proximal end of the barrel (28) to have a funnel shape would decrease the control over the plunger (26) inside the barrel. Specifically, if the end of the barrel was funnel-shaped, the proximal portion of the plunger (26) would have a larger radius of motion at the proximal end of the barrel, leading to a decrease in the control of the movement of the plunger and a decrease in the effectiveness of the plunger in dispensing material from the ampule. If one were to attempt to eliminate all of these drawbacks to the Examiner's proposed modification of Dragan, a larger, bulkier tool would need to be constructed, which itself is a disadvantage. The strongest rationale for combining references is a recognition that some advantage of expected beneficial result would be produced by the combination. See MPEP 2144. The facts presented here are just the opposite the proposed modification would change the principle of operation of Dragan as well as create a less desirable device. As explained in MPEP §2143.01, "[i]f the proposed modification or combination of the prior art would change the principle operation of the prior art invention being modified, then the

teachings of the references are not sufficient to render the claims *prima facie* obvious.” *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

For all of these reasons, the Examiner’s obviousness rejection based on the combination of Dragan and Peterson must be withdrawn. Independent claims 1 and 9, as well as claims 2-4, 6-8, 10-11, and 15-18 which depend therefrom, therefore distinguish over this combination of references.

(4) Dragan in view of Peterson and in further view of Orth.

Claims 5, 12, and 13 are rejected pursuant to 35 U.S.C. §103(a) as being obvious over Dragan in view of Peterson and in further view of Orth. Claim 5 depends from claim 1, and claims 12-13 depend from claim 9, and thus distinguish over Dragan and Peterson for at least the same reasons discussed above. Orth fails to remedy any of the deficiencies of Dragan and Peterson. Accordingly, claims 5 and 12-13 represent allowable subject matter.

Conclusion

Applicants submit that all pending claims are now in condition for allowance, and allowance thereof is respectfully requested. The Examiner is encouraged to telephone the undersigned attorney for Applicants if such communication is deemed to expedite prosecution of this application.

Dated: October 27, 2009

Respectfully submitted,

By: /William C. Geary III/
William C. Geary
Registration No.: 31,359
NUTTER MCCLENNEN & FISH LLP
World Trade Center West
155 Seaport Boulevard
Boston, Massachusetts 02210-2604
(617) 439-2888
(617) 310-9888 (Fax)
Attorney for Applicant